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(71) Applicant (for all designated States except US): THE
UNIVERSITY OF NORTH CAROLINA AT CHAPEL
HILL [US/US]; 308 Bynum Hall, Campus Box 4105,
Chapel Hill, NC 27599-4105 (US).

(71) Applicant and

(72) Inventor: ELKINS, Christopher [US/US]; 2216 Ridge-
wood Road, Chapel Hill, NC 27516 (US).

(74) Agent: BISWAS, Sorojini, J.; Myers Bigel Sibley &
Sajovec, P.O. Box 37428, Raleigh, NC 27627 (US).

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(54) Title: DSR A PROTEIN AND POLYNUCLEOTIDES ENCODING THE SAME

(57) Abstract: DsrA is an outer membrane protein of *H. ducreyi* that confers serum resistance to the bacteria. Isolated polynu-
cleotides encoding the protein, end expression vectors and host cells encoding the same, are described. Also described is a mutant
H. ducreyi strain that does not express DsrA. Vaccines against *H. ducreyi* and methods of using the same are also described.

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